

ABSTRACT OF THE DISCLOSURE

A method for welding a pair of metal sheets together along an edge of each metal sheet is provided that includes the steps of: 1) determining a line for each of the edges to be welded using one or more sensors; 2) selecting one of the edges to be welded as a dominant edge and the other edge to be welded as a non-dominant edge; and 3) welding the metal sheets together along the dominant edge and the non-dominant edge. The present invention further includes an apparatus capable of performing the present method.

(51) Internationale Patentklassifikation ⁷ :

B23K 37/04, 26/00, 15/00

A1

(11) Internationale Veröffentlichungsnummer: WO 00/53366

(43) Internationales

Veröffentlichungsdatum:

14. September 2000 (14.09.00)

(21) Internationales Aktenzeichen:

PCT/CH00 00086

(22) Internationales Anmeldedatum: 15. Februar 2000 (15.02.00)

(30) Prioritätsdaten:

423/99

8. März 1999 (08.03.99)

CH

(71) Anmelder (für alle Bestimmungsstaaten ausser US): ELPA-
TRONIC AG [CH/CH]; Industriestrasse 35, CH-8962
Bergdietikon (CH).

(72) Erfinder; und

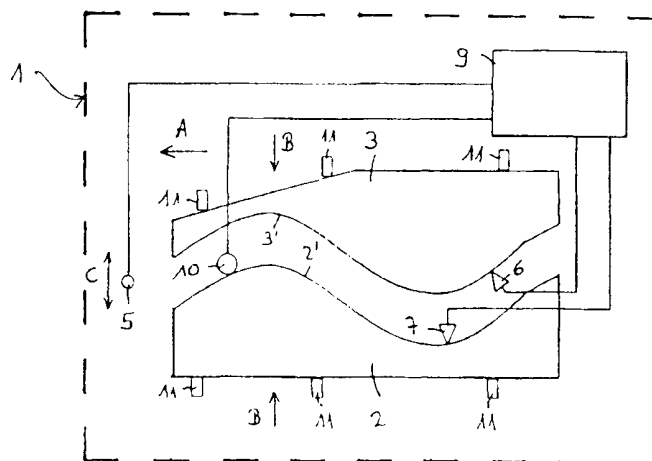
(75) Erfinder/Anmelder (nur für US): BUCHER, Romeo [CH/CH];
Verenahof 103a, CH-8236 Büttenhardt (CH). KAI-GL.
Bruno [CH/CH]; Dorfstrasse 4, CH-8608 Bubikon (CH).(74) Gemeinsamer Vertreter: ELPATRONIC AG; Industriestrasse
35, CH-8962 Bergdietikon (CH).(81) Bestimmungsstaaten: AL, AM, AT, AU, AZ, BA, BB, BG,
BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB,
GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR,
KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,
MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,
SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW,
europäisches Patent (AT, BE, CH, CY, DE, DK, ES, FI,
FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Veröffentlicht

Mit internationalem Recherchenbericht.

(54) Title: METHOD AND DEVICE FOR WELDING SHEETS

(54) Bezeichnung: VERFAHREN UND VORRICHTUNG ZUM SCHWEISSEN VON BLECHEN



(57) Abstract

During the welding of tailored blanks, the edges (2', 3') of the sheets (2, 3) are detected in the welding device (1) by sensing elements (6, 7). One of the edges is designated a reference edge and the other is adapted to this reference edge using a machining device (10). The sheets are then aligned with their edges and welded using a laser beam (5). This provides a simple means of obtaining an allowable gap value for the welding.